

Query Match 98.5% Score 26.6; DB 6; Length 27;
Best Local Similarity 74.1%; Pred. No. 0.032;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAATCTGAGCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||
DB 1 CCAATCTGAGCTGGAGCTCTCTGG 27

RESULT 2
LOCUS A41159 27 bp DNA linear PAT 05-MAR-1997
DEFINITION Sequence 6 from Patent W09426890.
ACCESSION A41159
VERSION A41159.1 GI:2296982
KEYWORDS
SOURCE unidentified.
ORGANISM unidentified.
REFERENCE 1 (bases 1 to 27)
AUTHORS Kingsman, S.M., Kingsman, A.J., Muckenthaler, M., Blanchard, A.,
Bradstock, M., and Vives, E.
TITLE HIV-1 TAR RNA BINDING PROTEIN
JOURNAL Patient: W0 9426890-A 6 24-NOV-1994;
FEATURES
SOURCE 1. .27
Location/Qualifiers
/organism "unidentified"
/db_xref "taxon:12644"

BASE COUNT 4 a 8 c 9 g 6 t
ORIGIN

Query Match 98.5% Score 26.6; DB 6; Length 27;
Best Local Similarity 74.1%; Pred. No. 0.032;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAATCTGAGCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||
DB 1 CCAATCTGAGCTGGAGCTCTCTGG 27

RESULT 4
LOCUS AR000042 27 bp DNA linear PAT 04-DEC-1998
DEFINITION Sequence 11 from patent US 5736294.
ACCESSION AR000042
VERSION AR000042.1 GI:3962573
KEYWORDS
SOURCE Unknown.
ORGANISM Unidentified.
REFERENCE 1 (bases 1 to 27)
AUTHORS Becker, D.J., Brice, T.W., and Vickers, T.A.
TITLE Reagents and methods for modulating gene expression through RNA
mimicry
JOURNAL Patent: US 5736294-A 11 07-APR-1998;
FEATURES
SOURCE 1. .27
Location/Qualifiers
/organism "unknown"

BASE COUNT 4 a 8 c 9 g 6 t
ORIGIN

Query Match 98.5% Score 26.6; DB 6; Length 27;
Best Local Similarity 74.1%; Pred. No. 0.032;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAATCTGAGCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||
DB 1 CCAATCTGAGCTGGAGCTCTCTGG 27

RESULT 4
LOCUS AR000042 27 bp DNA linear PAT 04-DEC-1998
DEFINITION Sequence 11 from patent US 5736294.
ACCESSION AR000042
VERSION AR000042.1 GI:3962573
KEYWORDS
SOURCE Unknown.
ORGANISM Unidentified.
REFERENCE 1 (bases 1 to 27)
AUTHORS Becker, D.J., Brice, T.W., and Vickers, T.A.
TITLE Reagents and methods for modulating gene expression through RNA
mimicry
JOURNAL Patent: US 5736294-A 11 07-APR-1998;
FEATURES
SOURCE 1. .27
Location/Qualifiers
/organism "unknown"

BASE COUNT 4 a 8 c 9 g 6 t
ORIGIN

LOCUS 122471 27 bp DNA linear PAT 07-OCT-1996
DEFINITION Sequence 20 from patent US 5527894.
ACCESSION 122471
VERSION 122471.1 GI:1602825
KEYWORDS
SOURCE Unknown.
ORGANISM Unidentified.
REFERENCE 1 (bases 1 to 27)
AUTHORS Gold, L.M., and Tuor, C.
TITLE Ligands of HIV-1 tat protein
JOURNAL Patent: US 5527894-A 20 18-JUN-1996;
FEATURES
SOURCE 1. .27
Location/Qualifiers
/organism "unknown"

BASE COUNT 4 a 8 c 9 g 6 t
ORIGIN

Query Match 98.5% Score 26.6; DB 6; Length 27;
Best Local Similarity 74.1%; Pred. No. 0.032;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAATCTGAGCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||
DB 1 CCAATCTGAGCTGGAGCTCTCTGG 27

RESULT 5
LOCUS AR000036 29 bp DNA linear PAT 04-DEC-1998
DEFINITION Sequence 5 from patent US 5736294.
ACCESSION AR000036
VERSION AR000036.1 GI:3962567
KEYWORDS
SOURCE Unknown.
ORGANISM Unidentified.
REFERENCE 1 (bases 1 to 29)
AUTHORS Becker, D.J., Brice, T.W., and Vickers, T.A.
TITLE Reagents and methods for modulating gene expression through RNA
mimicry
JOURNAL Patent: US 5736294-A 5 07-APR-1998;
FEATURES
SOURCE 1. .29
Location/Qualifiers
/organism "unknown"

BASE COUNT 4 a 9 c 10 g 6 t
ORIGIN

Query Match 98.5% Score 26.6; DB 6; Length 29;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAATCTGAGCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||
DB 2 CCAATCTGAGCTGGAGCTCTCTGG 28

RESULT 6
LOCUS AR004561 29 bp DNA linear PAT 04-DEC-1998
DEFINITION Sequence 20 from patent US 5747253.
ACCESSION AR004561
VERSION AR004561.1 GI:3965440
KEYWORDS
SOURCE Unknown.
ORGANISM Unidentified.
REFERENCE 1 (bases 1 to 29)
AUTHORS Becker, D.J., Vickers, T., and Davis, P.
TITLE Combinatorial oligomer immunosorbent screening assay for
transcription factors and other biomolecule binding
JOURNAL Patent: US 5747253-A 20 05-MAY-1998;
FEATURES
SOURCE Location/Qualifiers

source 1.29
BASE COUNT 4 a 9 c 10 g 6 t
ORIGIN

Query Match 98.5%; Score 26.6; DB 6; Length 29;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGATCTGAGCCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||:
Db 2 CCAGATCTGAGCCTGGAGCTCTCTGG 28

RESULT 7
DEFINITION AX008731 29 bp RNA linear PAT 06-SEP-2000
ACCESSION AX008731
VERSION AX008731.1 GI:9996228
KEYWORDS
SOURCE Human immunodeficiency virus.
ORGANISM Human immunodeficiency virus
VIRUSES; Retroviral viruses; Lentivirus; Primate
Lentivirus group.
REFERENCE 1 (bases 1 to 29)
AUTHORS Prescott,C.D. and Karn,J.
TITLE Methods and kits for discovery of rna-binding compounds
JOURNAL Patent: WO 9964625-A 5 16-DEC-1999;
R1HOTARGETS LIMITED (GB)
FEATURES
source 1.29
Location/Qualifiers
/organism="human immunodeficiency virus"
/db_xref="taxon:12721"

BASE COUNT 4 a 9 c 10 g 6 t
ORIGIN

Query Match 98.5%; Score 26.6; DB 6; Length 29;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGATCTGAGCCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||:
Db 2 CCAGATCTGAGCCTGGAGCTCTCTGG 28

RESULT 8
DEFINITION 167676 29 bp DNA linear PAT 30-DEC-1997
ACCESSION 167676
VERSION 167676.1 GI:2731211
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 29)
AUTHORS Ecker,D.J., Wyatt,J., Bruice,T.W., Anderson,K., Hanecak,R.C.,
Vickers,T. and Davis,P.
TITLE Synthetic unrandomization of oligomer fragments
JOURNAL Patent: US 5672472-A 20 30-SEP-1997;
FEATURES
source 1.29
Location/Qualifiers
/organism="unknown"
/db_xref="taxon:32644"

BASE COUNT 4 a 9 c 10 g 6 t
ORIGIN

Query Match 98.5%; Score 26.6; DB 6; Length 29;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGATCTGAGCCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||:

Db 2 CCAGATCTGAGCCTGGAGCTCTCTGG 28

RESULT 9
LOCUS 185568 29 bp DNA linear PAT 10-JUN-1998
DEFINITION Sequence 20 from patent US 5698391.
ACCESSION 185568
VERSION 185568.1 GI:3205286
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 29)
AUTHORS Cook,P., Dan., Ecker,D.J., Wyatt,J., Bruice,T.W., Anderson,K.,
Hanecak,R., Vickers,T., Davis,P., Freiler,S.M., Sandhu,V.S. and
Brown-Driver,V.
TITLE Methods for synthetic unrandomization of oligomer fragments
JOURNAL Patent: US 5698391-A 20 16-DEC-1997;
FEATURES
source 1.29
Location/Qualifiers
/organism="unknown"
/db_xref="taxon:32644"

BASE COUNT 4 a 9 c 10 g 6 t
ORIGIN

Query Match 98.5%; Score 26.6; DB 6; Length 29;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGATCTGAGCCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||:
Db 2 CCAGATCTGAGCCTGGAGCTCTCTGG 28

RESULT 10
LOCUS A41154 31 bp DNA linear PAT 05-MAR-1997
DEFINITION Sequence 1 from patent WO9426890.
ACCESSION A41154
VERSION A41154.1 GI:2296977
KEYWORDS
SOURCE unidentified.
ORGANISM unidentified.
REFERENCE 1 (bases 1 to 31)
AUTHORS Kingsman,S.M., Kingsman,A.J., Muckenthaler,M., Blanchard,A.,
Bradcock,M. and Vives,E.
TITLE HIV-1 TAR RNA BINDING PROTEIN
JOURNAL Patent: WO 9426890-A 1 24-NOV-1994;
ISIS INNOVATION (GB)
FEATURES
source 1.31
Location/Qualifiers
/organism="unidentified"
/db_xref="taxon:32644"

BASE COUNT 6 a 8 c 9 g 8 t
ORIGIN

Query Match 98.5%; Score 26.6; DB 6; Length 31;
Best Local Similarity 74.1%; Pred. No. 0.031;
Matches 20; Conservative 7; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGATCTGAGCCTGGAGCTCTCTGG 27
|||||:|||||:|||||:|||||:|||||:
Db 4 CCAGATCTGAGCCTGGAGCTCTCTGG 30

RESULT 11
LOCUS 124464 31 bp DNA linear PAT 07-OCT-1996
DEFINITION Sequence 8 from patent US 5543507.
ACCESSION 124464
VERSION 124464.1 GI:1604334
KEYWORDS

P1 Blanchard A, Braddock M, Kingsman AJ, Kingsman SM;
 P1 Muckenthaler M, Vives E;
 XX
 DE WPI: 1995-022281/04.
 XX
 PT HIV-1 TAR RNA binding protein, BBP - useful for treating
 PT retroviral infections including HIV-1
 XX
 PS Disclosure: Fig 5A; 44pp; English.
 XX
 CC AAO79607 describes the wild type HIV-1 TAR sequence, the HIV-1
 CC replication initiation protein (TAR) target sequence. A new HIV-1
 CC TAR binding protein BBP is claimed, this protein prevents TAR
 CC binding to TAR, and is therefore an effective inhibitor of HIV
 CC replication.
 CC
 XX Sequence 27 BP: 4 A; 8 C; 9 G; 6 U; 0 other;
 SO
 Query Match 98.5%; Score 26.6; DB 16; Length 27;
 Best Local Similarity 96.3%; Pred. No. 0.026;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 OY 1 CCAGAGUCGAGCSTGGGAGCUCUCUGG 27
 1 CCGAGAGUCGAGCUCUCUGGAGCUCUCUGG 27
 RESULT 2
 AAO79610
 ID AAO79610 standard; RNA; 27 BP.
 XX
 AC AAO79610;
 XX
 DE 18 AUG-1995 (first entry)
 XX
 DE HIV-1 TAR bulge substitution 23 (HS23) mutant.
 XX
 KW HIV-1 TAR bulge substitution 23 mutant; TAR target sequence;
 KW binding protein BBP; HIV replication inhibitors;
 KW human immunodeficiency virus type 1; ss.
 XX
 OS Human immunodeficiency virus type 1.
 XX
 FI Key location/Qualifiers
 FT stem_loop 1..27
 FT misc_feature 6..8 a
 FT misc_feature /*aaq b
 FT /label: tri-pyrimidine bulge
 XX
 PN W09426890-A.
 XX
 DE 24-NOV-1994.
 XX
 PE 18 MAY 1994; 94WO 03601061.
 XX
 PR 18 MAY 1994; 93GB-0010227.
 XX
 PA (ISIS-) ISIS INNOVATION LTD.
 XX
 P1 Blanchard A, Braddock M, Kingsman AJ, Kingsman SM;
 P1 Muckenthaler M, Vives E;
 XX
 DE WPI: 1995-022281/04.
 XX
 PT HIV-1 TAR RNA binding protein, BBP - useful for treating
 PT retroviral infections including HIV-1
 XX
 PS Disclosure: Fig 5A; 44pp; English.
 XX
 CC AAO79610 describes the sequence of the HIV-1 TAR bulge substitution
 CC 23 (HS23) mutant. The wild type TAR is the HIV-1 replication
 CC initiation protein (TAR) target sequence. A new HIV-1 TAR binding

CC protein BBP is claimed, this protein prevents TAR binding to TAR,
 CC and is therefore an effective inhibitor of HIV replication.
 XX
 DE Sequence 27 BP: 4 A; 8 C; 9 G; 6 U; 0 other;
 SO
 Query Match 98.5%; Score 26.6; DB 16; Length 27;
 Best Local Similarity 96.3%; Pred. No. 0.026;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 OY 1 CCAGAGUCGAGCSTGGGAGCUCUCUGG 27
 1 CCGAGAGUCGAGCUCUCUGGAGCUCUCUGG 27
 RESULT 3
 AAO20694
 ID AAO20694 standard; RNA; 27 BP.
 XX
 AC AAO20694;
 XX
 DE 24-JUN-1998 (first entry)
 XX
 DE oligonucleotide SEQ ID NO:11 from US5736294.
 XX
 KW Human; placental alkaline phosphatase; PAP; gene expression; RNA;
 KW human immunodeficiency virus; HIV; TAR; mimetic; ss.
 XX
 OS Unidentified.
 XX
 PN US5736294-A.
 XX
 DE 07-APR-1998.
 XX
 PE 27-JUN-1991; 91US-0724500.
 XX
 PR 27-JUN-1991; 91US-0724500.
 PR 21-MAR-1990; 90US-0497090.
 PR 19 MAR 1991; 91WO-US01822.
 XX
 PA (ISIS-) ISIS PHARM INC.
 XX
 FI Brice TW, Eckert DJ, Vickers TA;
 XX
 DE WPI: 1998-239195/21.
 XX
 PT Inhibition of HIV replication in vitro - comprises contacting virus
 PT with RNA oligonucleotide or its analogue
 XX
 PS Disclosure: Column 9; 27pp; English.
 XX
 CC The present sequence is shown in the disclosure of the present invention.
 CC The present invention describes methods for interfering with HIV
 CC replication in vitro comprising: (1) contacting the virus with an
 CC oligonucleotide (ON) or its analogue comprising the sequence (1); (2)
 CC contacting the virus with ON or its analogue comprising the sequence (11)
 CC and (3) contacting the virus with ON or its analogue comprising 6-50 nt
 CC and a sequence selected from the group consisting of (111), (1V) and (V):
 CC 5'-GUGGGA-3' (1) 5'-GUGGAGCUCUCUGGAGCUCUCUGG-3' (11) 5'-NNNNNN-3' (111)
 CC 5'-NNNNNN-3' (1V) 5'-NNNNNN-3' (V) N not defined. The methods can be
 CC used to provide compositions and therapies for human diseases, e.g.
 CC viral and retroviral infections.
 CC
 XX Sequence 27 BP: 4 A; 8 C; 9 G; 6 U; 0 other;
 SO
 Query Match 98.5%; Score 26.6; DB 16; Length 27;
 Best Local Similarity 96.3%; Pred. No. 0.026;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 OY 1 CCAGAGUCGAGCSTGGGAGCUCUCUGG 27
 1 CCGAGAGUCGAGCUCUCUGGAGCUCUCUGG 27

RESULT 4
 AAX05663 standard: RNA; 27 BP.
 XX
 AC AAX05663;
 XX
 DT 23-APR-1999 (first entry)
 XX
 DE HIV-1 oligonucleotide analog sequence.
 XX
 KW Human immunodeficiency virus; HIV; trans-acting responsive element;
 KW gene expression; viral; retroviral; infection; AIDS; mimetic; TAR;
 KW acquired immunodeficiency syndrome; ss.
 XX
 US Synthetic.
 Human immunodeficiency virus type 1.
 US5874564-A.
 XX
 PD 23-FEB-1999.
 XX
 PF 05-JUN-1995; 95US-0461418.
 XX
 PR 19-MAR-1991; 91WO-0501822.
 PR 21-MAR-1990; 90US-0497090.
 PR 16-SEP-1992; 92US-0927505.
 PR 05-JUN-1995; 95US-0461418.
 XX
 PA (ISIS-) ISIS PHARM INC.
 XX
 PI Bruce TW, Ecker DJ, Vickers T;
 XX
 DE WPI: 1999-180068/15.
 XX
 PT New oligonucleotides for modulating gene expression by RNA mimicry -
 PT useful for treating viral and retroviral diseases such as AIDS
 XX
 PS Disclosure: Column 9-10; 22pp: English.
 XX
 CC The invention relates to defined oligonucleotides (or their analogues)
 CC that are able to mimic the secondary or tertiary structure of RNA
 CC molecules, especially mRNA. It provides specific oligonucleotides
 CC (AAX05657-661) which mimic the human immunodeficiency virus (HIV) trans-
 CC acting responsive element (TAR). The RNA mimicry oligonucleotides mimic
 CC particular strands of RNA, especially mRNA, containing secondary
 CC structures important for RNA/protein interactions. The interaction of
 CC proteins with mimic molecules mimics the interactions of proteins
 CC with regulatory RNA. The oligonucleotides are useful for regulating/
 CC modifying gene expression and can be used in therapeutics for the
 CC treatment of viral and retroviral infections such as acquired
 CC immunodeficiency syndrome (AIDS). The oligonucleotides are also useful
 CC as probes in diagnostic and research reagents, and kits. The present
 CC sequence represents an oligonucleotide analog sequence that is used
 CC during the course of the invention.
 XX
 SQ Sequence 27 BP; 4 A; 8 C; 9 G; 6 U; 0 other;
 Query Match 98.5%; Score 26.6; DB 20; Length 27;
 Best Local Similarity 96.3%; Pred. No. 0.026;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 YY 1 CCAGAGUCGAGCGUGGAGCUCUCUGG 27
 DB 1 CCAGAGUCGAGCGUGGAGCUCUCUGG 27
 RESULT 5
 AAO14054
 ID AAO14054 standard: RNA; 29 BP.
 XX
 AC AAO14054;
 XX
 DT 07-JAN-1992 (first entry)

XX
 DE TAR mimetic oligonucleotide "2'-OMe-delta-TAR".
 XX
 XX RNA mimicry; Tar; trans-acting responsive element; HIV; LTR;
 KW retrovirus; ss.
 XX
 OS Synthetic.
 XX
 PN W09114436-A.
 XX
 PD 03-OCT-1991.
 XX
 PF 19-MAR-1991; 91WO-0501822.
 XX
 PR 21-MAR-1990; 90US-0497090.
 XX
 PA (ISIS-) ISIS PHARM INC.
 XX
 PI Ecker DJ, Bruce TW, Vickers T;
 XX
 DE WPI: 1991-310355/42.
 XX
 PT Modulating gene expression by RNA copying - using
 PT oligonucleotide(s) especially with secondary structure
 PT corresponding to HIV TAR sequence in treatment of HIV -infection
 XX
 PS Claim 60; Page 47; 62pp: English.
 XX
 CC This 2'-O-methyl oligonucleotide analogue has significant activity
 CC in inhibition of HIV gene expression.. It mimics the TAR sequence
 CC which is a transcription regulator of HIV. See AAO14053 6.
 XX
 SQ Sequence 29 BP; 4 A; 9 C; 10 G; 6 U; 0 other;
 Query Match 98.5%; Score 26.6; DB 12; Length 29;
 Best Local Similarity 96.3%; Pred. No. 0.026;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 CCAGAGUCGAGCGUGGAGCUCUCUGG 27
 DB 2 CCAGAGUCGAGCGUGGAGCUCUCUGG 28
 RESULT 6
 AAO37884
 ID AAO37884 standard: RNA; 29 BP.
 XX
 AC AAO37884;
 XX
 DT 04-JUL-1993 (first entry)
 XX
 DE Sequence of HIV TAR element.
 XX
 KW Oligonucleotide; target molecule; binding activity; therapy;
 KW TAR element; HIV; diagnosis; research; ss.
 XX
 OS Human Immunodeficiency Virus.
 XX
 PN W09304204-A.
 XX
 PD 04-MAR-1993.
 XX
 PR 21-AUG-1992; 92WO-0507121.
 XX
 PR 23-AUG-1991; 91US-0749000.
 XX
 PA (ISIS-) ISIS PHARM INC.
 XX
 PI Anderson K, Bruce TW, Davis P, Ecker DJ, Hancock RC;
 PI Vickers T, Wyatt J;
 XX
 DE WPI: 1993-094029/11.

| | | | |
|---|----|---|----------------|
| PE | XX | 05-JUN-1995; | 950S 046141H. |
| PR | XX | 19 MAR-1991; | 91MO-050182Z.. |
| PR | XX | 21 MAR-1990; | 90MS-0497090. |
| PR | XX | 16-SEP-1992; | 920S-0927505. |
| PR | XX | 05-JUN-1995; | 950S-046141H. |
| PA | XX | (USIS) ISIS PHARM INC. | |
| PI | XX | Inovice TW, Ecker DL, Vickers T; | |
| D8 | XX | WPI : 1999-180068/15. | |
| PT | XX | New oligonucleotides for modulating gene expression by RNA mimicry - | |
| PT | XX | useful for treating viral and retroviral diseases such as AIDS | |
| PS | XX | Claim 14; Column 26; 22pp; English. | |
| CC | XX | The invention relates to defined oligonucleotides (or their analogues) | |
| CC | XX | that are able to mimic the secondary or tertiary structure of RNA | |
| CC | XX | molecules, especially mRNA. It provides specific oligonucleotides | |
| CC | XX | (AAXX0557-661) which mimic the human immunodeficiency virus (HIV) trans- | |
| CC | XX | -acting responsive element (TAR). The RNA mimicry oligonucleotides mimic | |
| CC | XX | particular strands of RNA, especially mRNA, containing secondary | |
| CC | XX | structures important for RNA/protein interactions. The interaction of | |
| CC | XX | proteins with mimic molecules minimises the interactions of proteins | |
| CC | XX | with regulatory RNA. The oligonucleotides are useful for regulating/ | |
| CC | XX | modifying gene expression and can be used in therapeutics for the | |
| CC | XX | treatment of viral and retroviral infections such as acquired | |
| CC | XX | immunodeficiency syndrome (AIDS). The oligonucleotides are also useful | |
| CC | XX | as probes in diagnostic and research reagents, and kits. The present | |
| CC | XX | sequence represents a specifically claimed TAR mimetic oligo. | |
| SU | XX | Sequence: 29 BF; 4 A; 9 C; 10 G; 6 U; 0 other; | |
| Gy | XX | Query Match: | |
| | XX | Post Local Similarity: 98.5%; Score 26.6; Dh 20; Length 29; | |
| | XX | Matches: 26; Conservative: 1; Mismatches: 0; Indels: 0; Gaps: 0; | |
| 0Y | XX | 1 CCACAGCUCGACCGCACGCTGCACGGC 27 | |
| | XX | | |
| 10b | XX | 2 CCACACUCGACCGCACGCTGCACGGC 28 | |
| RESULT 10 | | | |
| 1D | XX | AAZ59074 standard; RNA; 29 BP. | |
| XX | XX | | |
| AC | XX | AAZ59074; | |
| XX | XX | | |
| DE | XX | 11 Apr-2000 (first entry) | |
| ● | | | |
| HIV-1 TAK oligonucleotide target sequence #5. | | | |
| KW | XX | Antiviral; antiherpetic; antitumoral; anticancer; detection; TAR; RRE; | |
| RW | XX | Fluorescence resonance energy transfer; tat; HIV-1; Rev response element; | |
| KW | XX | antimmune disease; trans-activation regulatory region; ss. | |
| OS | XX | Human immunodeficiency virus type 1. | |
| XX | XX | | |
| FH | XX | Key | |
| FT | XX | modified_base | |
| FT | XX | /tag_1 | |
| FT | XX | /note-- "optionally labelled with 5-carboxyfluorescein | |
| FT | XX | or indocarbocyanine-5" | |
| FT | XX | modified_base | |
| FT | XX | /tag_2 | |
| FT | XX | /tag_b | |
| FT | XX | "optionally labelled with DPhCYL | |
| FN | XX | (4-(dimethylamino)phenyl)azo benzoic acid)" | |
| PD | XX | W09964625-A2. | |
| PD | XX | 16-DEC-1999. | |

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PE 04-JUN-1999;          99W6-GH01761.
XX XX 05-JUN-1998;       98GB-0012196.
PR PR 02-MAR-1999;      99GB-0004790.
XX XX (RIBO-) RIBOTARGETS LTD.
PA PA
XX XX
PI PI Karn J., Prescott CD;
DB DB WPI: 2000-097545/08.
XX XX
XX XX Identifying compounds that bind to target RNA, potentially useful for
PT PT treating infections, tumors and autoimmune diseases
XX XX
PS PS Examples; Page 42; 82pp; English.
XX XX
CC CC The invention relates to a method of determining if a compound binds to
CC CC a target RNA by treating a test compound with a reporter (R) labelled
CC CC with a donor or acceptor group and labelled target RNA, labelled with the
CC CC complementary donor or acceptor group, and measuring the fluorescence
CC CC from fluorescent groups associated with a compound/target RNA complex in
CC CC presence of the test compound and comparing the result with a standard.
CC CC This oligonucleotide self anneal to form a double stranded
CC CC oligonucleotide containing the HIV-1 trans-activation regulatory region
CC CC (TAR) to which the HIV-1 Tat protein binds. The complex is labelled with
CC CC 6-carboxyfluorescein (FAM), indocarbocyanine-3 (Cy-3) or DABCYL.
CC CC 4-(dimethylamino)phenyl(azo)benzoic acid)and is used as a target for
CC CC the binding of a labelled Abp-1 protein. Detection of the complex is by
CC CC fluorescence resonance energy transfer (FRET). The method is used to
CC CC identify compounds that interfere with interaction between the target RNA
CC CC and ligands or proteins. Compounds that are identified are potentially
CC CC useful for treating infections (viral, bacterial or fungal), cancer
CC CC and autoimmune diseases. The compounds are preferably directed to the
CC CC TAR and RRE regions of human immunodeficiency virus RNA and inhibit
CC CC viral replication.
SO SO Sequence 29 BP; 4 A; 9 C; 10 G; 6 U; 0 other;

Query Match           98.5%; Score 26.6; BH 21; Length 29;
Host Local Similarity 96.3%; Pred. No.: 0.026;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

CY   1 CCAGACGCGAAGCCTGGAGCTGCCTGG 27
    1 | ||||| ||||||| ||||| |||||
PB   2 CCAGACGCGAAGCCTGGAGCTGCCTGG 28

RESULT 11
AAQ48915.
ID ID AAQ48915 standard; DNA: 31 BP.
XX XX
XX XX AAQ48915;
XX XX
DE DE 16-MAR-1994 (first entry)
XX XX Cross-linking oligonucleotide 11.
XX XX
KW KW crosslink: ON; oligonucleotide; hairpin loop; stem loop;
KM KM interior loop; bulge; fixation; ss.
OS OS Synthetic.
XX XX
FH FH Key location/qualifiers
FT FT modified_base 8
PT PT /*tag d
FT FT /mod_base= 2'-o'-(octylhydrazino)_uridine
PT PT /not_e_*ref: example 4-A*
PT PT modified_base 19
PT PT /*tag b
PT PT /mod_base= 2'-o'-(octylhydrazino)-guanosine
PT PT /note_*ref: example 4-A*
PT PT misc_binding 8
```

```

FT      /tag- c
FT      /note- "crosslinked to base 19 of (AA048915) via
XX      a homobifunctional linker as in example 19"
XX
XX      WO9318052-A.
XX
XX      16-SEP-1993.
XX
XX      05-MAR-1993: 93WO-0502059.
XX
XX      05-MAR-1992: 92US-0846376.
XX
XX      (ISIS-) ISIS PHARM INC.
XX
XX      Bruce T. Cook PD, Manoharan M;
XX      WPI: 1993-303395/38.
XX
XX      New covalently crosslinked oligo-nucleotide(s) - used to fix
XX      duplex structures or hairpin loop, stem loop, interior loop,
XX      bulge or other structures
XX
XX      Disclosure: Page 67; 145pp; English.
XX
XX      Sequences (AA048905-28) consist of novel crosslinked oligo-nucleotides.
XX      A number of crosslinking methods are claimed, which are used to fix
XX      separate ON strands in duplex structures or to fix a single ON
XX      strand in a hairpin loop, stem loop, interior loop, bulge or other
XX      similar higher-order structures. Fixing a strand or strands in a
XX      duplex structure also can disrupt the normal function of a
XX      single stranded nucleic acid-binding protein by forming nuclease
XX      resistant mimics of the protein binding receptors. The ONs have
XX      diagnostic, therapeutic and prophylactic applications as well as
XX      being used as research agents.
XX
XX      Sequence 31 BP; 5 A; 9 C; 10 G; 0 T; 7 U; 0 other;
XX
XX      Query Match 98.5%; Score 26.6; DB 14; Length 31;
XX      Best Local Similarity 96.3%; Pred. No. 0.026;
XX      Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX      1 CCAGAGUCGAGCCGUGGAGCCGUCGUCG 27
XX      |||||||
XX      3 CCAGAGUCGAGCCGUGGAGCCGUCGUCG 29
XX
XX      RESULT 12
XX      AA048920
XX      ID AA048920 standard; DNA: 31 BP.
XX
XX      AA048920:
XX
XX      16-MAR-1994 (first entry)
XX
XX      Cross-Linking oligonucleotide 16.
XX
XX      Crosslink; ON; oligonucleotide; hairpin loop; stem loop;
XX      Interior loop; bulge; fixation; ss.
XX
XX      Synthetic.
XX
XX      Key Location/Qualifiers
XX      modified_base 12
XX      /tag- a
XX      /mod_base- 2'-O-(pentylamino)-adenosine
XX      /note- "ref: example 4-A"
XX
XX      modified_base 23
XX      /tag- b
XX      /mod_base- 2'-O-(propion-4-yl-bis(oxo-nitrobenzyl))
XX      /note- "areal]-uridine
XX      12
XX      /tag- c
XX      misc_binding
XX      /tag- c

```

```

FT      /note- "crosslinked to base 23 of (AA048920) via
XX      an oxime linkage as in example 14"
XX
XX      WO9318052-A.
XX
XX      16-SEP-1993.
XX
XX      05-MAR-1993: 93WO-0502059.
XX
XX      05-MAR-1992: 92US-0846376.
XX
XX      (ISIS-) ISIS PHARM INC.
XX
XX      Bruce T. Cook PD, Manoharan M;
XX      WPI: 1993-303395/38.
XX
XX      New covalently crosslinked oligo-nucleotide(s) - used to fix
XX      duplex structures or hairpin loop, stem loop, interior loop,
XX      bulge or other structures
XX
XX      Disclosure: Page 71; 145pp; English.
XX
XX      Sequences (AA048905-28) consist of novel crosslinked oligo-nucleotides.
XX      A number of crosslinking methods are claimed, which are used to fix
XX      separate ON strands in duplex structures or to fix a single ON
XX      strand in a hairpin loop, stem loop, interior loop, bulge or other
XX      similar higher-order structures. Fixing a strand or strands in a
XX      duplex structure also can disrupt the normal function of a
XX      single stranded nucleic acid-binding protein by forming nuclease
XX      resistant mimics of the protein binding receptors. The ONs have
XX      diagnostic, therapeutic and prophylactic applications as well as
XX      being used as research agents.
XX
XX      Sequence 31 BP; 5 A; 9 C; 10 G; 0 T; 7 U; 0 other;
XX
XX      Query Match 98.5%; Score 26.6; DB 14; Length 31;
XX      Best Local Similarity 96.3%; Pred. No. 0.026;
XX      Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX      1 CCAGAGUCGAGCCGUGGAGCCGUCGUCG 27
XX      |||||||
XX      3 CCAGAGUCGAGCCGUGGAGCCGUCGUCG 29
XX
XX      RESULT 13
XX      AA048921
XX      ID AA048921 standard; DNA: 31 BP.
XX
XX      AA048921:
XX
XX      16-MAR-1994 (first entry)
XX
XX      Cross-Linking oligonucleotide 17.
XX
XX      Crosslink; ON; oligonucleotide; hairpin loop; stem loop;
XX      Interior loop; bulge; fixation; ss.
XX
XX      Synthetic.
XX
XX      Key Location/Qualifiers
XX      modified_base 1
XX      /tag- a
XX      /mod_base- 2'-O-(5-trityl[hexyl-8-thiol])_adenosine
XX      /note- "ref: example 4-A"
XX
XX      modified_base 31
XX      /tag- b
XX      /mod_base- 2'-O-(5-trityl[hexyl 8-thiol])_uridine
XX      /note- "ref: example 4-A"
XX      1
XX      /tag- c
XX      /note- "crosslinked to base 21 of (AA048921) via
XX      an oxime linkage as in example 15"
XX

```




Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27
|||||
DB 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27

RESULT 2
US-07-724-5008-11
Sequence 11, Application US/077245008
Patent No. 5746294
GENERAL INFORMATION:

APPLICANT: Ecker et al.
TITLE OF INVENTION: REAGENTS AND METHODS FOR MODULATING GENE EXPRESSION TH
NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STATE: PA
COUNTRY: USA
ZIP: 19103

COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE

COMPUTER: IBM PS/2

OPERATING SYSTEM: PC-DOS

SOFTWARE: WORDPERFECT 5.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07724, 5008

FILING DATE: June 27, 1991

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/US91/01822

FILING DATE: 19 March 1991

ATTORNEY/AGENT INFORMATION:

NAME: John W. Caldwell

REGISTRATION NUMBER: 28,947

REFERENCE/DCKET NUMBER: 1SIS-0309

TELECOMMUNICATION INFORMATION:

TELEPHONE: (215) 568-3100

TELEFAX: (215) 568-3439

INFORMATION FOR SEQ ID NO: 11:

SEQUENCE CHARACTERISTICS:

LENGTH: 27 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: other nucleic acid

HYDROPHETAL: No

ANTI SENSE: No

US-07-724-5008-11

Query Match 98.5%; Score 26.6; DB 1; Length 27;
Best Local Similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27
|||||
DB 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27

RESULT 3

US-08-461-418B-7

Sequence 7, Application US/08461418B

Patent No. 5874564

GENERAL INFORMATION:

APPLICANT: Ecker et al.

TITLE OF INVENTION: Reagents And Methods For Modulating Gene

TITLE OF INVENTION: Expression Through RNA Mimicry

NUMBER OF SEQUENCES: 17

CORRESPONDENCE ADDRESS:

ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5874564rls LLP

STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STATE: PA
COUNTRY: U.S.A.
ZIP: 19103

COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch disk, 1.44 MB

COMPUTER: IBM PC compat 1010

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: WORDPERFECT 6.1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/461,418B

FILING DATE: 05-JUN-1995

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/927,505

FILING DATE: 16-SEP-1992

ATTORNEY/AGENT INFORMATION:

NAME: Paul K. Leppard

REGISTRATION NUMBER: 48,534

REFERENCE/DCKET NUMBER: 1SIS-1998

TELECOMMUNICATION INFORMATION:

TELEPHONE: 215-568-3100

TELEFAX: 215-568-3439

INFORMATION FOR SEQ ID NO: 7:

SEQUENCE CHARACTERISTICS:

LENGTH: 27 bases

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

US-08-461-418B-7

Query Match 98.5%; Score 26.6; DB 2; Length 27;
Best Local Similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27
|||||
DB 1 CCAGAGTCGAGCGGAGGAGCGCTGCG 27

RESULT 4

US-07-794-396-3/c

Sequence 3, Application US/07794396

Patent No. 6044233

GENERAL INFORMATION:

APPLICANT: David Ecker et al.

TITLE OF INVENTION: Modulation of HIV Gene Expression

NUMBER OF SEQUENCES: 9

CORRESPONDENCE ADDRESS:

ADDRESSEE: Woodcock Washburn Kurtz

STREET: One Liberty Place - 46th Floor

CITY: Philadelphia

STATE: PA

COUNTRY: USA

ZIP: 19103

COMPUTER READABLE FORM:

MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE

COMPUTER: IBM PS/2

OPERATING SYSTEM: PC-DOS

SOFTWARE: WORDPERFECT 5.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/794,396

FILING DATE: 19911119

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 518,929

FILING DATE: May 4, 1990

APPLICATION NUMBER: PCT/US91/02558

FILING DATE: April 15, 1991

ATTORNEY/AGENT INFORMATION:


```

1 NAME: Jane Massey Licata
2 REGISTRATION NUMBER: 32,257
3 REFERENCE/PROJECT NUMBER: E1S-0478
4 TELECOMMUNICATION INFORMATION:
5 TELEPHONE: (215) 568-3100
6 TELEFAX: (215) 568-3439
7 INFORMATION FOR SEQ ID NO: 3:
8 SEQUENCE CHARACTERISTICS:
9 LENGTH: 28
10 TYPE: NUCLEIC ACID
11 STRANDEDNESS: single
12 TOPOLOGY: linear
13 ANTI-SENSE: yes
14 US-07-794-196-3

```

| | | | | |
|-----------------------|----------------|------------------|----------|-----------|
| Query Match | 98.5% | Score 26.6 | DB 3 | Length 28 |
| Best Local Similarity | 74.1% | Pred. No. 0.0075 | | |
| Matches 20 | Conservative 7 | Mismatches 0 | Indels 0 | Gaps 0 |

```

QY      1 CCAGAUUCUGAGCGUGGAGAGCUUCUCUG 2
        |||||:|||||:|||||:|||||
UH      27 CCAGATCTGAGCGTGGAGCTCTCTGG 1

```

```

US:R0811 5
: Sequence 20. Application US/08196103A
: Patent No. 5672472
: GENERAL INFORMATION:
: APPLICANT: Ecker, David J.
: APPLICANT: Anderson, Kevin
: APPLICANT: Bruce, Thomas A.
: APPLICANT: Davis, Peter
: APPLICANT: Driver, Vickie
: APPLICANT: Hanecak, Romie C.
: APPLICANT: Vickers, Timothy A.
: APPLICANT: Wyatt, Jaqueline
: TITLE OF INVENTION: Synthetic Unrandomization of Oligomer
: TITLE OF INVENTION: Fragments
: NUMBER OF SEQUENCES: 21
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz and No. 5672472R185
: STREET: One Liberty Place - 46th floor
: CITY: Philadelphia
: STATE: PA
: COUNTRY: U.S.A.
: ZIP: 19103
: COMPUTER READABLE FORM:
: MEDIUM TYPE: floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: PatentIn Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/196,103A
: FILING DATE: February 22, 1994
: CLASSIFICATION: 435
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US 749,000
: FILING DATE: 23-AUG-1991
: ATTORNEY/AGENT INFORMATION:
: NAME: Gaumond, Rebecca R.
: REGISTRATION NUMBER: 35,152
: REFERENCE/DOCKET NUMBER: 1515-0678
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: 215-568-3100
: TELEFAX: 215-568-3449
: INFORMATION FOR SEQ ID NO: 20:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 29 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: single
: TOPOLOGY: linear
: MOLECULE TYPE: RNA (genomic)

```

Db 2 CCAGAGUCGAGCGCGGAGCGUCGCG 28

RESULT 7

US-07-724-500B-5
Sequence 5, Application US/07724500B
Patent No. 5746294
GENERAL INFORMATION:
APPLICANT: Eckert et al.
TITLE OF INVENTION: REAGENTS AND METHODS FOR MODULATING GENE EXPRESSION THE
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & No. 5736294ris
STREET: One Liberty Place - 46th floor
CITY: Philadelphia
STATE: PA
COUNTRY: USA
ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07724,500B
FILING DATE: June 27, 1991
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US91/01822
FILING DATE: 19 March 1991
ATTORNEY/AGENT INFORMATION:
NAME: John W. Caldwell
REGISTRATION NUMBER: 28,947
REFERENCE/DOCKET NUMBER: 1SIS-0409
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-4100
TELEFAX: (215) 568-4439
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 29 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: other nucleic acid
HYPOTHETICAL: NO
ANTI-SENSE: NO
US-07-724-500B-5

Query Match 98.5%; Score 26.6; DB 1; Length 29;
Best local similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

UY 1 CCAGAGUCGAGCGCGGAGCGUCGCG 27
|||||
Db 2 CCAGAGUCGAGCGCGGAGCGUCGCG 28

RESULT 8
US-08-461-411B-20
Sequence 20, Application US/08461411
Patent No. 5747254
GENERAL INFORMATION:
APPLICANT: Eckert, David J.
APPLICANT: Davis, Peter
TITLE OF INVENTION: COMBINATORIAL OLIGOMER
TITLE OF INVENTION: IMMUNOSUBSTRATE SCREENING ASSAY FOR TRANSCRIPTION
TITLE OF INVENTION: FACTORS AND OTHER MOLECULE BINDING
NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz and

ADDRESSEE: No. 5747254ris
STREET: One Liberty Place - 46th floor
CITY: Philadelphia
STATE: PA
COUNTRY: U.S.A.
ZIP: 19103

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461,411
FILING DATE:
CLASSIFICATION: 435

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/042,852
FILING DATE: 16 MAR 1993
APPLICATION NUMBER: US/07/749,000
FILING DATE: 23-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: Gaumond, Rebecca R.
REGISTRATION NUMBER: 45,152
REFERENCE/DOCKET NUMBER: 1SIS 0654
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-568-4100
TELEFAX: 215-568-4439
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
LENGTH: 29 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: RNA (genomic)
US-08-461-411B-20

Query Match 98.5%; Score 26.6; DB 1; Length 29;
Best local similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

UY 1 CCAGAGUCGAGCGCGGAGCGUCGCG 27
|||||
Db 2 CCAGAGUCGAGCGCGGAGCGUCGCG 28

RESULT 9
US-08-461-411B-5
Sequence 5, Application US/08461411B
Patent No. 5747564
GENERAL INFORMATION:
APPLICANT: Eckert et al.
TITLE OF INVENTION: Reagents And Methods For Modulating Gene
TITLE OF INVENTION: Expression Through RNA Mimicry
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5747564ris LLP
STREET: One Liberty Place - 46th floor
CITY: Philadelphia
STATE: PA
COUNTRY: U.S.A.
ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 1.44 MB
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wordperfect 6.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461,411B
FILING DATE: 05-JUN-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/927,505
FILING DATE: 16-SEP-1992

ATTORNEY/AGENT INFORMATION:
NAME: Paul K. Iegard
REGISTRATION NUMBER: 48,544
REFERENCE/DOCKET NUMBER: ISIS-1998
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-568-3100
TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 29 bases
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-461-4184-5

Query Match 98.5%; Score 26.6; DB 2; Length 29;
Best Local Similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

1 CCAGAUCCGAGCCUGGAGCUCUCUGG 27
|||||
2 CCAGAUCCGAGCCUGGAGCUCUCUGG 28

RESULT 10
PCT-US91-01822A-5
Sequence 5, Application PC/TUS9101822A
GENERAL INFORMATION:
APPLICANT: Ecker et al.
TITLE OF INVENTION: REAGENTS AND METHODS FOR MODULATING
TITLE OF INVENTION: GENE EXPRESSION THROUGH RNA MIMICRY
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & Norris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STATE: PA
COUNTRY: USA
ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US91/01822A
FILING DATE: 19910319
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 497,090
FILING DATE: March 21, 1990
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISIS-0109
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 29
TYPE: NUCLEIC ACID
STRANDEDNESS: single
TOPOLOGY: unknown
PCT-US91-01822A-5

Query Match 98.5%; Score 26.6; DB 5; Length 29;
Best Local Similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

1 CCAGAUCCGAGCCUGGAGCUCUCUGG 27
|||||
2 CCAGAUCCGAGCCUGGAGCUCUCUGG 28

DB 2 CCAGAUCCGAGCCUGGAGCUCUCUGG 28

RESULT 11
PCT-US91-02628-5
Sequence 5, Application PC/TUS9102628
GENERAL INFORMATION:
APPLICANT: Ecker et al.
TITLE OF INVENTION: REAGENTS AND METHODS FOR MODULATING
TITLE OF INVENTION: GENE EXPRESSION THROUGH RNA MIMICRY
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz
ADDRESSEE: Mackiewicz & Norris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STATE: PA
COUNTRY: USA
ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US91/02628
FILING DATE: 19910417
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 497,090
FILING DATE: March 21, 1990
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISIS-0109
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 29
TYPE: NUCLEIC ACID
STRANDEDNESS: single
TOPOLOGY: unknown
PCT-US91-02628-5

Query Match 98.5%; Score 26.6; DB 5; Length 29;
Best Local Similarity 96.3%; Pred. No. 0.0075;
Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

1 CCAGAUCCGAGCCUGGAGCUCUCUGG 27
|||||
2 CCAGAUCCGAGCCUGGAGCUCUCUGG 28

RESULT 12
US-08-205-507-8
Sequence 8, Application US/08205507
Patent No. 5543507
GENERAL INFORMATION:
APPLICANT: Phillip Dan Cook, Muthiah Manoharan, and Thomas W.
TITLE OF INVENTION: Covalently Cross-Linked
TITLE OF INVENTION: Oligonucleotides
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5543507/US
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
STATE: PA
COUNTRY: USA
ZIP: 19103
COMPUTER READABLE FORM:

RESULT 13
 US-08-205-507-15
 Sequence 15, Application US/08205507
 Patent No. 5543507
 GENERAL INFORMATION:
 APPLICANT: Phillip Dan Cook, Muthiah Manoharan, and Thomas
 APPLICANT: Phillip
 TITLE OF INVENTION: Covalently Cross-Linked
 TITLE OF INVENTION: oligonucleotides
 NUMBER OF SEQUENCES: 17
 CORRESPONDENCE ADDRESS:
 ADDRESS: Woodcock Washburn Kurtz MacKinnon & No. 554350715
 STREET: One Liberty Place - 40th Floor
 CITY: Philadelphia
 STATE: PA
 COUNTRY: USA
 ZIP: 19103
 MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
 COMPUTER READABLE FORM:
 MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
 COMPUTER: IBM PS/2
 OPERATING SYSTEM: PC-DOS
 SOFTWARE: WORDPERFECT 5.1
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/205,507
 FILING DATE: Herewith
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: PCT/US93/02059
 FILING DATE: March 5, 1993
 ATTORNEY/AGENT INFORMATION:
 NAME: Joseph Lucet
 REGISTRATION NUMBER: 33,307
 REFERENCE/MARKET NUMBER: 1S1S-1304
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (215) 568-3100
 TELEFAX: (215) 568-3439
 INFORMATION FOR SEQ ID NO: 15:

RESULT 14
US-08-295-743-11
Sequence 11, Application US/08295743
Patent No. 5719271
GENERAL INFORMATION:
APPLICANT: ISIS Pharmaceuticals, Inc.
TITLE OF INVENTION: Covalently Cross-Linked
TITLE OF INVENTION: oligonucleotides
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:

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1  COMPUTER READABLE FORM:
2  MEDIUM TYPE: 3.5 inch disk, 720 Kb
3  COMPUTER: IBM PC compatible
4  OPERATING SYSTEM: PC-DOS/MS-DOS
5  SOFTWARE: WordPerfect 5.1
6
7  CURRENT APPLICATION DATA:
8  APPLICATION NUMBER: US/08/295,743
9  FILING DATE: 30-AUG-1994
10 CLASSIFICATION: 514
11 PRIOR APPLICATION DATA:
12 APPLICATION NUMBER: 846,476
13 FILING DATE: 05-MAR-1992
14 ATTORNEY/AGENT INFORMATION:
15 NAME: Joseph Incci
16 REGISTRATION NUMBER: 33,307
17 REFERENCE/DOCKET NUMBER: 181S-1006
18 TELECOMMUNICATION INFORMATION:
19 TELEPHONE: 215-568-3100
20 TELEFAX: 215-568-3439
21 INFORMATION FOR SEQ ID NO: 11:
22 SEQUENCE CHARACTERISTICS:
23 LENGTH: 31 base pairs
24 TYPE: nucleic acid
25 STRANDEDNESS: single
26 TOPOLOGY: linear
27
28 FEATURE:
29 NAME/KEY: Modified-site
30 LOCATION: 8
31 OTHER INFORMATION: uridine nucleotide having a
32 OTHER INFORMATION: 2'-O-(corylhydrazine) group
33 FEATURE:
34 NAME/KEY: Modified-site
35 LOCATION: 19
36 OTHER INFORMATION: guanosine nucleotide having
37 OTHER INFORMATION: a 2'-O-(corylhydrazine) group
38
39 US-08-295-743-11

```

Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGACUGAGCUGGAGCUCUCUGG 27
 |||||
 Db 3 CCAGACUGAGCUGGAGCUCUCUGG 29

RESULT 15

US-08-295-743-16
 : Sequence 16, Application US/08295743
 : Patent No. 5719271
 : GENERAL INFORMATION:
 : APPLICANT: ISIS Pharmaceuticals, Inc.
 : TITLE OF INVENTION: Covalently Cross-Linked
 : TITLE OF INVENTION: Oligonucleotides
 : NUMBER OF SEQUENCES: 26
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz
 : ADDRESSEE: and No. 5719271ris
 : STREET: One Liberty Place - 46th Floor
 : CITY: Philadelphia
 : STATE: PA
 : COUNTRY: U.S.A.
 : ZIP: 19103
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: 3.5 inch disk, 720 KB
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: WordPerfect 5.1
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/295,743
 : FILING DATE: 30-AUG 1994
 : CLASSIFICATION: 514
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: 846,376
 : FILING DATE: 05-MAR-1992
 : ATTORNEY/AGENT INFORMATION:
 : NAME: Joseph Lucchi
 : REGISTRATION NUMBER: 33,307
 : REFERENCE/DOCKET NUMBER: ISIS-1006
 : TELECOMMUNICATION INFORMATION:
 : TELEPHONE: 215-568-3100
 : TELEFAX: 215-568-3439
 : INFORMATION FOR SEQ ID NO: 16:
 : SEQUENCE CHARACTERISTICS:
 : LENGTH: 31 base pairs
 : TYPE: nucleic acid
 : STRANDEDNESS: single
 : TOPOLOGY: linear
 : FEATURE:
 : NAME/KEY: Modified-site
 : LOCATION: 12
 : OTHER INFORMATION: adenosine nucleotide having
 : OTHER INFORMATION: a 2'-O-(pentylamino) group
 : FEATURE:
 : NAME/KEY: Modified-site
 : LOCATION: 23
 : OTHER INFORMATION: uridine nucleotide having a
 : OTHER INFORMATION: 2'-O-[propion-4-yl bis(o-nitrobenzyl) acetal]
 : OTHER INFORMATION: group
 : US-08-295-743-16

Query Match 98.5%; Score 26.6; DB 1; Length 31;
 Best Local Similarity 96.3%; Pred. NO. 0.0075;
 Matches 26; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCAGACUGAGCUGGAGCUCUCUGG 27
 |||||
 Db 3 CCAGACUGAGCUGGAGCUCUCUGG 29

Search completed: October 29, 2002, 12:22:05
 Job time : 46 secs



GenCore version 5.1.3
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OM nucleic - nucleic search, using sw model

Run on: October 29, 2002, 12:10:56 : Search time 1639 Seconds
(without alignments)
222.342 Million cell updates/sec

Title: US-09-864-873-12

Perfect score: 27

Sequence: 1 ccagacucagcscuqagucucucug 27

Opening table: IDENTITY_NUC

Gapop 10.0, Gapext 1.0

Searched: 13746207 seqs, 6748477542 residues 1906256

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0

Maximum DB seq length: 200

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: EST:
1: em_estha:
2: em_esthum:
3: em_estin:
4: em_estnu:
5: em_estov:
6: em_estpl:
7: em_estro:
8: em_hic:
9: qb_est1:
10: qb_est2:
11: qb_hic:
12: qb_gss:
13: em_gss_hum:
14: em_gss_inv:
15: em_gss_plu:
16: em_gss_vtl:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB ID | Description |
|------------|-------|-------------|--------|-------|--------------------|
| 1 | 19.2 | 71.1 | 153 | 12 | AZ807299 2M0070K06 |
| 2 | 18.8 | 69.6 | 93 | 9 | AA508655 n067q08.s |
| 3 | 18.8 | 69.6 | 101 | 9 | AA508431 n070b12.s |
| 4 | 18.8 | 69.6 | 158 | 9 | AA048127 m127d05.t |
| 5 | 18.8 | 69.6 | 172 | 9 | AA591965 v150b11.t |
| 6 | 18.8 | 69.6 | 175 | 9 | AA484604 n10d12.s |
| 7 | 18.8 | 69.6 | 199 | 9 | AA651707 m047b02.t |
| 8 | 18.8 | 69.6 | 200 | 9 | AA049229 m033110.t |
| 9 | 18.6 | 68.1 | 178 | 9 | AA562466 v098b08.t |
| 10 | 18.4 | 68.1 | 186 | 10 | N52704 y207q10.t1 |
| 11 | 18.2 | 67.4 | 165 | 10 | Bf760623 PM4-CT056 |
| 12 | 18.2 | 67.4 | 170 | 9 | AA526693 n185h11.s |
| 13 | 17.8 | 65.9 | 168 | 12 | AZ826715 2M0102109 |
| 14 | 17.2 | 63.7 | 100 | 9 | AA508638 n066910.s |
| 15 | 17.2 | 63.7 | 108 | 9 | AA494083 n61d10.s |
| 16 | 17.2 | 63.7 | 108 | 9 | AA508659 n067h01.s |
| 17 | 17.2 | 63.7 | 113 | 9 | AA503772 n07b02.s |

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|------|------|------|-----|----|---------------------|
| c 18 | 17.2 | 63.7 | 113 | 9 | AA526670 n183h03.s |
| 19 | 17.2 | 63.7 | 115 | 9 | AA492180 n078b12.s |
| 20 | 17.2 | 63.7 | 118 | 9 | AA881408 vx17q11.t |
| 21 | 17.2 | 63.7 | 119 | 9 | AA501682 n066e03.s |
| 22 | 17.2 | 63.7 | 119 | 9 | AA525368 n184e10.s |
| 23 | 17.2 | 63.7 | 122 | 9 | AA503773 n07b06.s |
| 24 | 17.2 | 63.7 | 124 | 9 | AA503369 n07c05.s |
| 25 | 17.2 | 63.7 | 125 | 9 | AA583550 n143q07.s |
| 26 | 17.2 | 63.7 | 126 | 9 | AA492275 n080b01.s |
| 27 | 17.2 | 63.7 | 140 | 9 | AA572911 nm42104.s |
| 28 | 17.2 | 63.7 | 144 | 9 | AA589956 n110a03.s |
| 29 | 17.2 | 63.7 | 147 | 9 | AA557650 n146b02.s |
| 30 | 17.2 | 63.7 | 148 | 9 | AA557514 n149e11.s |
| 31 | 17.2 | 63.7 | 150 | 9 | AA797474 v027q12.t |
| 32 | 17.2 | 63.7 | 153 | 12 | AZ899416 RPT1-24-1 |
| 33 | 17.2 | 63.7 | 154 | 9 | AA506950 n064c08.s |
| 34 | 17.2 | 63.7 | 157 | 9 | AA557653 n146b07.s |
| 35 | 17.2 | 63.7 | 162 | 9 | AA420638 n061110.s |
| 36 | 17.2 | 63.7 | 166 | 9 | AA492286 n080c04.s |
| 37 | 17.2 | 63.7 | 168 | 9 | AA502844 n063c01.s |
| 38 | 17.2 | 63.7 | 172 | 9 | AA508817 m077d04.t1 |
| 39 | 17.2 | 63.7 | 172 | 10 | AA47961 n077d04.t1 |
| 40 | 17.2 | 63.7 | 173 | 9 | AA557430 n085d09.s |
| 41 | 17.2 | 63.7 | 181 | 9 | AA049491 m135c08.t |
| 42 | 17.2 | 63.7 | 181 | 12 | AA0308310 CITH1-E1 |
| 43 | 17.2 | 63.7 | 194 | 9 | AA508667 n067h10.s |
| 44 | 17.2 | 63.7 | 194 | 9 | AA525354 n184b04.s |
| 45 | 17.2 | 63.7 | 198 | 9 | AA506874 n062h02.s |

ALIGNMENTS

RESULT 1
AZ807299 153 bp DNA linear GSS 20-FEB-2001
DEFINITION 2M0070K06 Mouse 10kb plasmid U06C1M library Mus musculus genomic
LOCUS 2M0070K06F Mouse 10kb plasmid U06C1M library Mus musculus genomic
ACCESSION AZ807299
VERSION AZ807299.1 GI:12971507
KEYWORDS GSS.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 153)
Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamill, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
Mouse whole genome scaffolding with paired end reads from 10kb plasmid inserts
Unpublished (2000)
Contact: Robert B. Weiss
University of Utah
University of Utah Genome Center
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., Ste. 01
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert length: 10000 Std Error: 0.00
Plate: 0070 Row: K Column: 06
Seq primer: CGTTGTAACGACGCGCGT
Class: plasmid ends
High quality sequence stop: 153.
Location/Qualifiers
1..153
/organism="Mus musculus"
/strain="G57BL/6J"
/db_xref="taxon:10090"
/clone="U06C2M0070K06"
/clone_lib="Mouse 10kb plasmid U06C1M library"

TITLE
JOURNAL
COMMENT
FEATURES
source

/sex "Male"
/lab_host "E. coli strain XL10-Gold, T1-resistant, F-"
/note "Vector: pMD22m; purified genomic DNA from M. musculus c57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrolytically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptor DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMD22 (q14721149b/AF124672.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptor mouse DNA was annealed to chemically competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

BASE COUNT 27 a 45 c 36 g 45 t
ORIGIN

Query Match 71.18; Score 19.27; DB 12; Length 153;
Best Local Similarity 57.78; Pred. No. 5.4e+02;
Matches 15; Conservative 7; Mismatches 4; Indels 0; Gaps 0;

QY 2 CACATCCGACGAGCGAGCTCTCTG 27
|||||:|||||:|||||:
Db 102 CACCTCGACGAGCTCTCTCTCTG 127

RESULT 2 AA508655 93 bp mRNA linear EST 18-AUG-1997
LOCUS nh07408.s1 NC1_CGAP_P78 Homo sapiens cDNA clone IMAGE:957470, mRNA
DEFINITION
Accession AA508655
Version AA508655.1 GI:2246158
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
REFERENCE 1 (bases 1 to 93)
NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
NATIONAL Cancer Institute, Cancer Genome Anatomy Project (CGAP).
Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgaps@mail.nih.gov
Tissue procurement: David G. Hostwick, M.D., Rodrigo F. Chuquib, M.D., Michael R. Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: David B. Kitzman, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/HLIN at: www.bio.lnln.gov/bbrp/image/image.html
Insert length: 197 Std Error: 0.00
Seq primer: 40m13 fwd, RT from Amersham.
Location/Qualifiers
1..93
/organism "Homo sapiens"
/db_xref "taxon:9606"
/clone_image "957470"
/clone_lib "NC1_CGAP_P78"
/sex "male"
/tissue_type "Prostate"
/lab_host "DH10B"
/note "Vector: pAMP10; mRNA made from invasive prostate tumor, cDNA made by oligo-dT priming. Non-directionally

FEATURES

SOURCE

cloned. Size selected on agarose gel, average insert size 600 bp.
BASE COUNT 24 a 27 c 25 g 17 t
ORIGIN

Query Match 69.68; Score 18.87; DB 9; Length 93;
Best Local Similarity 66.78; Pred. No. 6.7e+02;
Matches 16; Conservative 5; Mismatches 4; Indels 0; Gaps 0;
QY 4 ACATCCGACGAGCGAGCTCTCTG 26
|||||:|||||:|||||:
Db 39 ACATCCGACGAGCGAGCTCTCTG 62

RESULT 3 AA508431 101 bp mRNA linear EST 18-AUG-1997
LOCUS nh70b12.s1 NC1_CGAP_P78 Homo sapiens cDNA clone IMAGE:957695, mRNA
DEFINITION
Accession AA508431
Version AA508431.1 GI:2245944
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
REFERENCE 1 (bases 1 to 101)
NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
NATIONAL Cancer Institute, Cancer Genome Anatomy Project (CGAP).
Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgaps@mail.nih.gov
Tissue procurement: David G. Hostwick, M.D., Rodrigo F. Chuquib, M.D., Michael R. Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: David B. Kitzman, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/HLIN at: www.bio.lnln.gov/bbrp/image/image.html
Insert length: 191 Std Error: 0.00
Seq primer: 40m13 fwd, RT from Amersham.
Location/Qualifiers
1..101
/organism "Homo sapiens"
/db_xref "taxon:9606"
/clone_image "957695"
/clone_lib "NC1_CGAP_P78"
/sex "male"
/tissue_type "Prostate"
/note "Vector: pAMP10; mRNA made from invasive prostate tumor, cDNA made by oligo-dT priming. Non-directionally cloned. Size selected on agarose gel, average insert size 600 bp."
BASE COUNT 20 a 27 c 41 g 24 t

FEATURES

SOURCE

Query Match 69.68; Score 18.87; DB 9; Length 101;
Best Local Similarity 66.78; Pred. No. 6.9e+02;
Matches 16; Conservative 5; Mismatches 4; Indels 0; Gaps 0;
QY 3 ACATCCGACGAGCGAGCTCTCTG 26
|||||:|||||:|||||:
Db 52 ACATCCGACGAGCGAGCTCTCTG 29

RESULT 4 AA048127 158 bp mRNA linear EST 09-SEP-1996
LOCUS m127d05.f1 Soares mouse embryonic 14.5 mus musculus cDNA
DEFINITION
m127d05.f1 Soares mouse embryonic 14.5 mus musculus cDNA
clone IMAGE:477321 5', mRNA sequence.

/organism="Mus musculus"
 /strain="C57BL/6J"
 /db_xref="taxon:10090"
 /clone="MGC2M0102109"
 /clone_lib="Mouse 10kb plasmid U00CTM library"
 /sex="Male"
 /lab_host="E. Coli strain XL10-Gold, Tl-resistant, F-"
 /note="Vector: pMD24hyr. Purified genomic DNA from M.
 musculus C57Bl/6J (male) was obtained from the Jackson
 Laboratory Mouse DNA Resource
 (<http://www.jax.org/resources/documents/dnares/>). The DNA
 was hydrodynamically sheared by repeated passage through a
 0.005 inch orifice at constant velocity. The sheared DNA
 was blunt end-repaired with T4 DNA polymerase and T4
 polynucleotide kinase. Adaptor oligonucleotides were
 ligated to the blunt ends in high molar excess. The
 adaptor DNA was purified and size-selected for a 9.5 to
 10.5 kb range using preparative agarose gel
 electrophoresis. Vector DNA was prepared from a derivative
 of PMD2 (qll473114/qblAP129072.1), a copy-number
 inducible derivative of plasmid RI. The vector was ligated
 with adaptors complementary to the insert adaptors and
 purified. The sheared, adaptor mouse DNA was annealed to
 adaptor vector DNA, and transformed into
 chemically-competent E. coli XL10-Gold (Stratagene) cells
 and selected for ampicillin resistance."

[illegible]

Tue Oct 29 17:23:06 2002

us-09-864-873-12.rst

Page 8

Search completed: October 29, 2002, 14:22:18
Job time: 1644 secs